and buy them, for we must have them to read and study. It would seem that it is impossible to repay an author, in money, for the intellectual labor expended upon his investigation, essay, memoir, or volume. Equally is it impossible for the reader to make a financial estimate of the intellectual stimulus and mental food that he receives by reading the book. Our modern intellectual and scientific life is above all financial and even utilitarian ideas. Money is very convenient as a medium of exchange in buying and selling ponderable matter, but it has no more definite relation to intellectual attainments than it has to pain or pleasure or the sentiment of justice. Meteorological journals or associations and meteorological progress in general will have to be prosecuted in the future as in the past by the sacrifice — say rather, by the devotion—of time and money and personal energies quite independent of the utilitarian aspects of the results that have been or will be attained.

In order that an American meteorological association should prosper with as little expense and friction as possible, it would be best to have but one meeting annually, at the time and place of the August meeting of the American Association for the Advancement of Science. This annual meeting need only occupy a part of one day, leaving the members free to attend all meetings of the general association. Its time need not be taken up with the discussion of scientific details that can be referred to the physical, geographical, and other sections of the Association, but it may be profitably given to the consideration of matters of business bearing on the promotion of the general interests of this special branch of science. The special annual meetings of several societies are now held under the shadow of the general American Association.

NOTES FROM THE REPORTS OF STATE SECTIONS.

ALABAMA.

Mr. A. M. Valerio, voluntary observer at Daphne, describes the smudge invented by the Meacham Bros., of Riverside, Cal., quoting from the Alabama report of April, 1897:

> The system is very simple. A piece of ordinary wire screen 4 feet square is fastened at the corners to four stakes set in the ground. Six inches in thickness of wet leaves or straw is placed on the screen, with a can of crude petroleum underneath. When the oil is ignited a dense white smoke arises, which soon fills the orchard, and so heavy that it does not rise much above the tree tops. There is an entire absence of sooty smoke which, in experiments in years gone by, proved objectionable because it rendered the fruit unfit for use, but in its stead is a white smoke. It is shown that twenty of these screen baskets are ample for a 10-acre orchard.

COLORADO.

From the special reports on snowfall the Section Director, F. H. Brandenburg, makes the following summary:

> The majority of the reports show that the snowfall during February was generally less than a foot, and, being very light, made little if any addition to the stock of snow at great altitudes, at best only making good the loss by evaporation. In the parks and hills of less elevation the high temperatures and bright sunshine caused not only a disappearance of the current fall, but of considerable old snow as well. A comparison of the averages for February, 1897, with current averages shows that the amount of snow on the ground in the parks and hills is about one-fourth as much as a year ago, and that on the highest ranges the depth is less than one-half that reported last year.

MARYLAND.

Mr. E. G. Kinsell, voluntary observer at Green Spring Furnace, Washington County, about 500 feet above sea level, gives an account of one of the heaviest local rainfalls. It occurred apparently on the 9th of August, 1887. It had been an exceedingly hot day and at about 5 p. m. dark storm clouds began to gather. About 6 p. m. it began raining heavily and so continued without intermission until 9:30 p. m. No rain gauge was at hand, but the water collected in buckets and barrels indicated a rainfall of 12 to 14 inches during that interval, both at Green Spring Furnace and at a point 2 miles north of it. This rainfall was confined to very narrow limits, covering an area that extended 4 or 5 miles from east to west and about 5 miles north and south. There was no wind whatever during the rain. Of course a great amount of damage was done within that area which is a few miles north of the Potomac River and the Chesapeake and Ohio Canal.

MONTANA.

The name of the station Hogan has been changed to Dearborn Canyon because its location at the base of the main range of the Rocky Mountains and in the mouth of the Canyon causes its climate to be much more like that of the station known by the same name than like that of the post office at Hogan, which is 13 miles distant.

On January 31 the observer at Greatfalls, Cascade County, recorded a series of hot winds in the south and southwest between 11:30 a. m. and 1:45 p. m., during which the temperatures rose to 58° or 71°, according to locality. The same hot wind was experienced over a narrow region, including Fort Benton in Choteau County and Fort Logan in Meagher County. The comparison of records at adjacent stations shows that the maximum temperature of 64° for January, reported by the Greatfalls observer, was, therefore, not an error, but the record of a fœhn wind. The observer states:

> Strange as it may seem, the "ranges," 20 miles distant, have been covered with ice and snow during the past months, but within that distance the ground around this locality is bare of snow and frozen only to a slight depth.

MINNESOTA AND NEBRASKA.

In both these reports we find extracts from a lecture by Dr. J. G. Macpherson on the formation of dew, as published in Symons' Monthly Meteorological Magazine, for May, 1897. Mr. Macpherson's explanations refer entirely to the dew observed on grass and other plants near the ground, and he correctly shows that this has been condensed so soon after its diffusion upward from the soil, that we may properly say that the water which forms the dew rises from the ground. But all the vapor in the whole atmosphere has risen either from the ground or from the ocean, and in general, whether dew is deposited on the grass or on the house tops or the mountain tops, it must be formed from vapor that originally rose from the earth or ocean. It conveys a wrong impression to say the dew does not fall from the air, for it certainly is condensed from the air upon cold surfaces. It is precipitation in the technical meteorological usage of that word, but does not fall like rain, in fact, it may be said to rise if it is found on the under side of a cold surface. The drops of sap that exude from the tips of many leaves are, of course not dew, but from their resemblance to it are called "false dew." Any attempt to measure the true quantity of dew must avoid including this exudation.

WISCONSIN.

Mr. Wilson gives a special chart and description of the exceptionally severe snowstorm of Saturday, February 19, and Sunday, the 20th. The heaviest snowfall occurred along the eastern and southern borders of the State; the fall at Milwaukee exceeded 24 inches and the drifts were from 10 to 15 feet deep. The timely warnings furnished by the Weather Bureau enabled railroad officials to make ample preparations. The center of the storm passed south of Wisconsin, and heavy northeast winds backing to north prevailed at Milwaukee for fifty-two hours.

THE SEMAQUIR.

The semaquir is said to be a curious stone found in Finland that turns black shortly before the approach of rain, but in fine dry weather it is mottled dark and white. Chem-